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APPLICATION NO.	FILING DATE	FIRST NAMED INVENTOR	ATTORNEY DOCKET NO.	CONFIRMATION NO.
09/816,613	03/23/2001	Hajime Hosaka	112857-223	7172

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EXAMINER

NGUYEN, ANTHONY H

ART UNIT	PAPER NUMBER
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2854

DATE MAILED: 04/10/2003

Please find below and/or attached an Office communication concerning this application or proceeding.

## Office Action Summary

Application No.

09/816,613

Applicant(s)

HOSAKA ET AL.

Examiner

Anthony H Nguyen

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-- The MAILING DATE of this communication appears on the cover sheet with the correspondence address --

### Period for Reply

A SHORTENED STATUTORY PERIOD FOR REPLY IS SET TO EXPIRE 3 MONTH(S) FROM THE MAILING DATE OF THIS COMMUNICATION.

- Extensions of time may be available under the provisions of 37 CFR 1.136(a). In no event, however, may a reply be timely filed after SIX (6) MONTHS from the mailing date of this communication.
- If the period for reply specified above is less than thirty (30) days, a reply within the statutory minimum of thirty (30) days will be considered timely.
- If NO period for reply is specified above, the maximum statutory period will apply and will expire SIX (6) MONTHS from the mailing date of this communication.
- Failure to reply within the set or extended period for reply will, by statute, cause the application to become ABANDONED (35 U.S.C. § 133).
- Any reply received by the Office later than three months after the mailing date of this communication, even if timely filed, may reduce any earned patent term adjustment. See 37 CFR 1.704(b).

### Status

- 1) ☒ Responsive to communication(s) filed on 21 January 2003.
- 2a) ☐ This action is **FINAL**. 2b) ☒ This action is non-final.
- 3) ☐ Since this application is in condition for allowance except for formal matters, prosecution as to the merits is closed in accordance with the practice under *Ex parte Quayle*, 1935 C.D. 11, 453 O.G. 213.

### Disposition of Claims

- 4) ☒ Claim(s) 1-21 is/are pending in the application.
- 4a) Of the above claim(s) \_\_\_\_\_ is/are withdrawn from consideration.
- 5) ☐ Claim(s) \_\_\_\_\_ is/are allowed.
- 6) ☒ Claim(s) 1-6, 9 and 12-21 is/are rejected.
- 7) ☒ Claim(s) 7, 8 and 11 is/are objected to.
- 8) ☐ Claim(s) \_\_\_\_\_ are subject to restriction and/or election requirement.

### Application Papers

- 9) ☐ The specification is objected to by the Examiner.
- 10) ☐ The drawing(s) filed on \_\_\_\_\_ is/are: a) ☐ accepted or b) ☐ objected to by the Examiner.  
Applicant may not request that any objection to the drawing(s) be held in abeyance. See 37 CFR 1.85(a).
- 11) ☐ The proposed drawing correction filed on \_\_\_\_\_ is: a) ☐ approved b) ☐ disapproved by the Examiner.  
If approved, corrected drawings are required in reply to this Office action.
- 12) ☐ The oath or declaration is objected to by the Examiner.

### Priority under 35 U.S.C. §§ 119 and 120

- 13) ☐ Acknowledgment is made of a claim for foreign priority under 35 U.S.C. § 119(a)-(d) or (f).  
a) ☐ All b) ☐ Some \* c) ☐ None of:  
1. ☐ Certified copies of the priority documents have been received.  
2. ☐ Certified copies of the priority documents have been received in Application No. \_\_\_\_\_.  
3. ☐ Copies of the certified copies of the priority documents have been received in this National Stage application from the International Bureau (PCT Rule 17.2(a)).  
\* See the attached detailed Office action for a list of the certified copies not received.
- 14) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. § 119(e) (to a provisional application).  
a) ☐ The translation of the foreign language provisional application has been received.
- 15) ☐ Acknowledgment is made of a claim for domestic priority under 35 U.S.C. §§ 120 and/or 121.

### Attachment(s)

- 1) ☒ Notice of References Cited (PTO-892) 4) ☐ Interview Summary (PTO-413) Paper No(s) \_\_\_\_\_
- 2) ☐ Notice of Draftsperson's Patent Drawing Review (PTO-948) 5) ☐ Notice of Informal Patent Application (PTO-152)
- 3) ☐ Information Disclosure Statement(s) (PTO-1449) Paper No(s) \_\_\_\_\_ 6) ☐ Other: \_\_\_\_\_

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***Claim Rejections - 35 U.S.C. § 102***

The following is a quotation of the appropriate paragraphs of 35 U.S.C. 102 that form the basis for the rejections under this section made in this Office action:

A person shall be entitled to a patent unless –

(e) the invention was described in (1) an application for patent, published under section 122(b), by another filed in the United States before the invention by the applicant for patent or (2) a patent granted on an application for patent by another filed in the United States before the invention by the applicant for patent, except that an international application filed under the treaty defined in section 351(a) shall have the effects for purposes of this subsection of an application filed in the United States only if the international application designated the United States and was published under Article 21(2) of such treaty in the English language.

Claim 1 is rejected under 35 U.S.C. 102(e) as being anticipated by Deeds (US 6,202,257).

Deeds teaches a portable information terminal which meets the structure as claimed. Deeds teaches a hand-held device 100 having a plurality of component faces, a plurality of input keys 104 located on a component face 108a or 108b and a display screen 102 located on a component face 116 which is adjacent to the component face 108a or 108b (Deeds, Fig.1A).

***Claim Rejections - 35 U.S.C. § 103***

The following is a quotation of 35 U.S.C. 103(a) which forms the basis for all obviousness rejections set forth in this Office action:

(a) a patent may not be obtained though the invention is not identically disclosed or described as set forth in section 102 of this title, if the differences between the subject matter sought to be patented and the prior art are such that the subject matter as a whole would have been obvious at the time the invention was made to a person having ordinary skill in the art to which said subject matter pertains. Patentability shall not be negated by the manner in which the invention was made.

Claims 2, 6, 9, 12-14, and 18-21 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Deeds (US 6,202,257) in view of Miwa (US 5,626,428).

With respect to claims 2, 9, 12, and 21, Deeds teaches a portable information terminal having substantially the structure as claimed. See the explanation of Deeds above.

Deeds fails to teach input keys arranged in a zigzag pattern on the component surface.

However, Miwa teaches a keyboard device having a display, a plurality of input keys arranged in a zigzag pattern as shown in Figs. 2, 3, 6, 7 and 9 of Miwa.

Therefore, it would have been obvious to one of ordinary skill in the art to modify the hand-held device of Deeds by replacing the input keys of Deeds with the input keys arranged in a zigzag pattern as taught by Miwa to improve the efficiency of entering data on a portable terminal with one hand.

With respect to claims 6, Deeds teaches the third component face 118a which forms a gripping surface (Deeds, col. 2, lines 32-34).

With respect to claims 9 and 18, it is obvious that one of ordinary skill in the art to use the terminal of Deeds or Miwa with a left hand or right hand with four fingers of each hand.

Claim 10 is rejected under 35 U.S.C. § 103 (a) as being unpatentable over Deeds (US 6,202,257) in view of Matthews (US 5,432,510).

Deeds teaches all that claimed, as explained in the above rejection of claim 1, except the changeover port for changing over an allocation of input key on the second component. Matthews teaches a portable information terminal having a changeover port or thumb button 14 or 19 on a second component face for changing over an allocation

on input keys or generating signal in a right hand mode and a left hand mode (Matthews, Fig.1 and claim 7). In view of the teaching of Matthews, it would have been obvious to one of ordinary skill in the art to modify the terminal of Deeds by providing the changeover port as taught by Matthews for quickly operating the terminal in a right hand mode or a left hand mode.

Claims 3-5 and 15-17 are rejected under 35 U.S.C. § 103 (a) as being unpatentable over Deeds (US 6,202,257) in view of Miwa (US 5,626,428) and Kline (US 4,565,460).

Deeds teaches a portable information terminal having substantially the structure as claimed. See the explanation of Deeds above.

Deeds fails to teach input keys arranged in a zigzag pattern on the component surface and having a projection form on the top face of the key.

However, Miwa teaches a keyboard device having a plurality of input keys arranged in a zigzag pattern as shown in Figs.2,3,6,7 and 9 of Miwa. Kline teaches a key 10 having a projection 22 on the surface 12 of the key as shown in Figs.4a-6c.

Therefore, in view of the teaching of Miwa and Kline, it would have been obvious to one of ordinary skill in the art to modify the hand-held device of Deeds by replacing the input keys of Deeds with the input keys arranged in a zigzag pattern as taught by Miwa and providing a projection on the surface of the key as taught by Kline to improve the efficiency of entering data with one hand.

With respect to claims 3 and 15, note the Figs.6a-6c of Kline show a rib-like portion 24 and a projection 12 formed at a middle portion of the key.

***Allowable Subject Matter***

Claims 7, 8, and 11 are objected to as being dependent upon a rejected base claim, but would be allowable if rewritten in independent form including all of the limitations of the base claim and any intervening claims.

Claims 7 is allowable since the prior art does not teach the third component face having at least one key and a button.

Claims 8 is allowable since the prior art does not teach the third component face having at least one of a shift key, a control key, a caps lock key.

*cul.* Claim 11 is allowable since the prior art does not <sup>teach</sup> ~~teach~~ at least four input keys arranged in a zigzag pattern in which each of the two rows is supported for pivotal motion around a fulcrum at an edge portion.

***Response to Arguments***

Applicants' arguments filed on January 21, 2003 have been fully considered but they are not persuasive of any error in the above rejections.

Applicant argues that Deeds and Miwa fail to teach the portable information terminal as recited. Specifically, applicant argues that Deeds does not teach or suggest the keyboard on the side 118a or side 118b.

However, as explained above, Deeds meets the structure as recited in claim 1.

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Clearly, Deeds teaches a portable information terminal having a polyhedral structure having a plurality of component faces including a display screen on the first component face which has a keyboard including plurality of keys 104(Fig.2A). Note that the side 118a of Deeds which includes a keyboard (as broadly interpreted) having keys 104 shown in Fig.2B.

Applicant argues that Miwa fails to teach the portable information terminal having a plurality of component face.

However, the combination of Deeds and Miwa renders obvious the claims 2,69,12-14 and 18-21 since it would have been obvious to one of ordinary skill in the art to modify the keyboard of Deeds by providing the keyboard having a zigzag pattern as taught by Miwa.

Since applicant does not discuss the combination of Deeds, Miwa and Kline which respect to the rejection of claims 3-5 and 15-17, the rejections are believed proper.

### ***Conclusion***

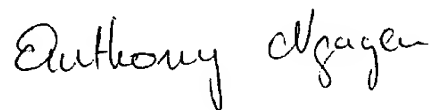
The patents to Bertram, Keinonen et al. and Griffin et al. are cited to show other structures having obvious similarities to the claimed structure.

Any inquiry concerning this communication or earlier communications from the examiner should be directed to Anthony Nguyen whose telephone number is (703) 308-2869. The examiner can normally be reached daily from 9 AM to 5PM.

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If attempts to reach the examiner by telephone are unsuccessful, the examiner's supervisor, Andrew Hirshfeld, can be reached on (703) 305-6619. The fax phone number for this Group is (703) 308-7722.

Any inquiry of a general nature or relating to the status of this application or proceeding should be directed to the Group receptionist whose telephone number is (703) 308-0956.



Anthony Nguyen  
4/7/03  
Patent Examiner  
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